CONTENTS OF VOLUME 21

Vol. 21, No. 1

Review

J. Marín, M. C. Ibañez and **S. Arribas** 1 Therapeutic management of nausea and vomiting

Minireview

David Raeburn 11 Eicosanoids, epithelium and airway reactivity

General Papers

Koichiro Kawashima, Kazuko Fujimoto, Takeshi Suzuki and **Hisayo Oohata** 17 Pharmacological differentiation of presynaptic M_1 muscarinic receptors modulating acetylcholine release from postsynaptic muscarinic receptors in guinea-pig ileum

Christine Benistant, Catherine Rey and **Pierre Fonlupt** 23 Increased methylation of chloroform extractable products in brain membrane preparations after propranolol injection to the rat

Ana Maria Buzaleh, Elba Susana Vazquez and **Alcira Maria del Carmen Batlle** 27 Cyanide intoxication—III. On the analogous and different effects provoked by non-lethal and lethal challenged doses

Temma Kyosuke, Hiroshi Kondo, Hiroshi Hirano, Takio Kitazawa and **Tai Akera** 33 Ca^{2+} entry blockers, force staircase and the onset of the positive inotropic action of cardiotonic steroids in isolated cardiac muscle

Isabel Martín, Isabel Colado, Victor del Val and **Maria José Alfaro** 41 Dihydropyridines on guinea-pig ileum

F. S. Messiha 45 Leu-enkephalin, tamoxifen and ethanol interactions: effects on motility and hepatic ethanol metabolizing enzymes

Y. P. Vedernikov, L. Aarhus, J. T. Shepherd and **P. M. Vanhoutte** 49 Postmortem changes in endothelium-dependent and independent responses of porcine coronary arteries

James L. Ellis, Lubo Kasakov, Mila Vlaskovska and **Geoffrey Burnstock** 53 Prejunctional α_1-adrenoceptors modify release of [^{3}H]noradrenaline in the guinea-pig vas deferens

M. N. Scanlon, P. Koziarz and **G. J. Moore** 59 The relationship between homotropic and heterotropic cooperativity for angiotensin receptors in smooth muscle

Helen Douglas and **Ian Kitchen** 67 Non-opioid effects of *N*-methyl levallorphan in the anaesthetised rat

Vesselin D. Petkov, Stephanka L. Stancheva, Lidia Tocuschieva and **Vesselin V. Petkov** 71 Changes in brain biogenic monoamines induced by the nootropic drugs adafenoxate and meclofenoxate and by citicholine (experiments on rats)

E. Atanassova, A. Rakovska, K. Milenov and **A. Noeva** 77 Acetylcholine release in two parts of the canine ileum

J. Palermo-Neto and **V. A. C. Dorce** 83 Influences of estrogen and/or progesterone on some dopamine related behavior in rats

B. Cantabrana, A. Baamonde, F. Andres-Trelles and **A. Hidalgo** 89 Effects of inhibitors of eicosanoid synthesis in the uterus of ovariectomized rats and rats in natural oestrus: relation with calcium

Carlo Alberto Maggi, Luigi Abelli, Sandro Giuliani, Vincenzo Somma, Martino Furio, Riccardo Patacchini and **Alberto Meli**	97	Motor and inflammatory effect of hyperosmolar solutions on the rat urinary bladder in relation to capsaicin-sensitive sensory nerves
G. P. Morley and **T. O. Neild**	105	Response of the rat tail artery to prolonged exposure to noradrenaline
Magdalena Güemes, Fernando Rivilla, Carlos F. Sanchez Ferrer and **Jesús Marín**	109	Purinergic and cyclic AMP modulation of noradrenaline release in cat femoral arteries
João B. Calixto and **Antônio E. G. Sant'ana**	117	Evidence for the mechanism of the inhibitory action of jatrophone in the isolated rat uterine muscle
K. Venkova, N. Pencheva and **R. Radomirov**	123	Activation of δ-type opioid receptors modulates the responses of cat terminal ileum to field electrical stimulation
Katsuo Kamata, Noriyuki Miyata and **Yutaka Kasuya**	127	Effects of endothelin on the portal vein from spontaneously hypertensive and Wistar Kyoto rats
Tereza T. Oshiro, Catarina F. P. Teixeira and **Seizi Oga**	131	Propylene glycol enhances anti-inflammatory effects of phenylbutazone
S. C. Law and **R. G. King**	135	Effects of ponalrestat on depressor responses to arachidonic acid in streptozotocin-diabetic rats
Eric Q. Colquhoun, Manthinda Hettiarachchi, Ji-Ming Ye, Stephen Rattigan and **Michael G. Clark**	141	Inhibition by vasodilators of noradrenaline and vasoconstrictor-mediated, but not skeletal muscle contraction-induced oxygen uptake in the perfused rat hindlimb; implications for non-shivering thermogenesis in muscle tissue
D. Staneva-Stoytcheva, J. Popova, V. Mutafova-Yambolieva and **P. Alov**	149	Influence of long-term treatment with the Ca^{2+}-antagonists nifedipine, verapamil, flunarizine and with the calmodulin antagonist trifluoperazine on β-adrenoceptors in rat cerebral cortex
Book Reviews	153	
New Patents	i	New patents and published patent applications for the United States and over 30 other countries

Vol. 21, No. 2

Minireviews		
Roberto DeLucia and **Cleopatra S. Planeta**	161	Fencamfamine
John Church and **David Lodge**	165	Anticonvulsant actions of phencyclidine receptor ligands: correlation with *N*-methylaspartate antagonism *in vivo*
H. F. Miranda and **C. Paeile**	171	Interactions between analgesics and calcium channel blockers
General Papers		
Tadashi Ikeda, Tomoko Kurita, Hidemasa Hidaka, Suzanne M. Michalek and **Masatomo Hirasawa**	175	Low-cariogenicity of the tetrasaccharide nystose
Yuen-Sum Lau, Karen L. Trobough, James M. Crampton and **John A. Wilson**	181	Effects of probenecid on striatal dopamine depletion in acute and long-term 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP)-treated mice
M. T. Barrús, G. Balfagón, M. Salaíces and **J. Marín**	189	[^{3}H]5-hydroxytryptamine uptake and release in cat cerebral arteries

G. M. Salido, M. Z. Gil, J. A. Pariente, M. J. Pozo and **J. A. Madrid**	195	Effects of pirenzepine on CCK-stimulated canine pancreatic exocrine secretion
M. A. Maleque, P. K. Adhikary, S. Pavuluri, P. Kopsombut and **H. K. Rucker**	199	Potentiation of cholinergic activity with pyridino[1,2-a]imidazo[5,4-b]indole: *in vitro* studies
Z. Sevim Ercan, A. Serdar Soydan and **R. Kazim Türker**	205	Possible involvement of endothelium in the responses of various vasoactive agents in rabbit isolated perfused kidney
Prakash V. Sulakhe, Gowraganahalli Jagadeesh and **Ngoc T. Phan**	211	Two distinct, divalent cation-sensitive, antagonist binding states of heart muscarinic receptors: differential modulation by guanine nucleotide
Ana Maria Buzaleh, Elba Susana Vazquez and **Alcira Maria Del Carmen Batlle**	219	The effect of cyanide intoxication on hepatic rhodanese kinetics
J. St. Popova and **V. V. Petkov**	223	Changes in 5-HT_1 receptors in different brain structures of rats with isolation syndrome
J. Reviriego, M. J. Alonso, C. Ibañez and **J. Marín**	227	Action of adenosine and characterization of adenosine receptors in human placental vasculature
Alexander Scriabine, Mary Pan and **Paul M. Vanhoutte**	235	Effect of lipoxygenase inhibitors on Ca^{2+}-induced constriction of the rabbit ear artery
Charles D. Lox	241	The effects of dietary marine fish oils (omega-3 fatty acids) on coagulation profiles in men
Carlo Alberto Maggi, Sandro Giuliani, Riccardo Patacchini, Gabriele Barbanti, Damiano Turini and **Alberto Meli**	247	Contractile responses of the human urinary bladder, renal pelvis and renal artery to endothelins and sarafotoxin S6b
Hong Xiang and **John H. McNeill**	251	Calcium uptake activity of cardiac sarcoplasmic reticulum in myo-inositol-treated diabetic rats
A. Pinto, R. Sorrentino and **L. Sorrentino**	255	Levamisole inhibits *in vivo* rat platelet aggregation by a release of prostacyclin-like factor
N. Miyake and **I. Takayanagi**	261	Stereoselectivity of NC-1100, a Ca-entry blocker
Book Reviews	265	
New Patents	i	New patents and published patent applications for the United States and over 30 other countries

Vol. 21, No. 3

Minireview		
Geoffrey K. Chambers	267	The genetics of human alcohol metabolism
General Papers		
Muslim Ali, Mohammed Afzal, Rihab A. H. Hassan, Amal Farid and **John F. Burka**	273	Comparative study of the *in vitro* synthesis of prostaglandins and thromboxanes in plants belonging to Liliaceae family
Alessandro Bartolini, Alberto Giotti, Sandro Giuliani, Petra Malmberg-Aiello and **Riccardo Patacchini**	277	Bicuculline actions on isolated rat atria, mouse vas-deferens and guinea-pig ileum are unrelated to GABA A receptor blockade
João B. Calixto and **Rosendo A. Yunes**	285	Blockade of kinin-induced responses of the guinea-pig isolated urinary bladder by the extract of *Mandevilla velutina*

M. Riera, J. Sánchez, R. Rama and **L. Palacios** 291 Changes in haemoglobin oxygen affinity and erythrocytic 2,3-BPG in ethanol-treated rats

Charles D. Lox 295 Effects of marine fish oil (omega-3 fatty acids) on lipid profiles in women

I. Takayanagi, R. Kurata, H. Kubo and **Y. Kizawa** 299 Effect of ageing on nicotine-induced contraction of guinea-pig bronchial preparation

Issei Takayanagi, Masayuki Ogishima and **Katsuo Koike** 303 Thermodynamic analysis of β-adrenergic partial agonists (befunolol and carteolol) interaction with low and high affinity binding sites of β-adrenoceptors in guinea-pig taenia caecum

Issei Takayanagi, Hisashi Hagiwara and **Katsuo Koike** 309 Stereoselectivity in beta-adrenomimetic and beta-adrenolytic actions of carteolol, a beta-adrenoceptor blocker with intrinsic sympathomimetic action in guinea-pig taenia caecum

M. L. Laorden, E. Carrillo, F. S. Miralles and **M. M. Puig** 313 Effects of diltiazem on hyperthermia induced seizures in the rat pup

J. Popova, D. Staneva-Stoytcheva and **V. Mutafova** 317 Effects of the Ca^{2+}-antagonists nifedipine, verapamil, flunarizine and of the calmodulin antagonist trifluoperazine on muscarinic cholinergic receptors in rat cerebral cortex

Wai-Shiu Fred Wong and **Ralf G. Rahwan** 321 Antiulcer activity of the calcium antagonist propyl-methyl-enedioxyindene—I. Effect on cold/restraint stress-induced ulcers in rats

Wai-Shiu Fred Wong and **Ralf G. Rahwan** 327 Antiulcer activity of the calcium antagonist propyl-methyl-enedioxyindene—II. Effects on acid secretion and gastric emptying in rats

J. S. Serrano, M. I. Serrano, M. R. Guerrero, R. Ruiz and **J. Polo** 333 Antinociceptive effect of taurine and its inhibition by naxolone

Makoto Saitoh, Junichi Hasegawa and **Hiroto Mashiba** 337 Effect of corticotropin-releasing factor on the electrical and mechanical activities of the guinea-pig ventricular myocardium

Koichiro Kawashima, Terumasa Hayakawa, Yuko Miwa, Hisayo Oohata, Takeshi Suzuki, Kazuko Fujimoto, Tatsunori Ogino and **Zhengxiong Chen (Masao Chin)** 343 Structure and hypotensive activity relationships of tetrandrine derivatives in stroke-prone spontaneously hypertensive rats

Tetsuyuki Nasu and **Yukio Ishida** 349 Effects of cadmium ions, D-600 and KCN on calcium-45 uptake in smooth muscle of guinea-pig taenia coli

S. Hussain, J. Bagust, C. R. Gardner, R. A. Ward and **R. J. Walker** 355 Quantitative analysis of γ-aminobutyric acid (GABA) receptors of Purkinje cell layer from rat cerebellar slices

Book Reviews 365

New Patents i New patents and published patent applications for the United States and over 30 other countries

Vol. 21, No. 4

Review

M. Ebadi, R. F. Pfeiffer and **L. C. Murrin** 367 Pathogenesis and treatment of neuroleptic malignant syndrome

Minireviews

Hiromichi Yamamoto and **Hideo Kanaide** 387 Release of intracellularly stored Ca^{2+} by inositol 1,4,5-trisphosphate—an overview

Nobukuni Ogata 395 Pharmacology and physiology of $GABA_B$ receptors

General Papers

Renata Wojtkowiak, Ewa Turska, Lilla Lachowicz and **Wiktor Koziołkiewicz** 403 Effects of N- and C-terminal fragments of substance P on ATPase and monoamine oxidase activities in rat brain

Carlos A. Taira and **María Amelia Enero** 407 Cardiovascular responses to adrenergic agonists in sinoaortic denervated rats

J. C. Flório and **J. Palermo-Neto** 411 Effects of dihydroergotoxine on some dopamine-related behaviors in rats

Sandro Giuliani, Carlo Alberto Maggi and **Alberto Meli** 417 Opioid receptors and prejunctional modulation of capsaicin-sensitive sensory nerves in guinea-pig left atrium

Susana Graciela Afonso, Cesar Francisco Polo, Nora Maria Navone, Elba Susana Vazquez, Ana Maria Buzaleh, Ernesto Schoua and **Alcira Maria del Carmen Batlle** 423 *In vivo* prevention and reversal by the antimitotic colchicine and other related compounds of some porphyrinogenic drug action on heme pathway

Penelope A. Longhurst 427 The effects of testosterone or insulin treatment on contractile responses of the rat vas deferens following castration or streptozotocin-induced diabetes mellitus

C. Giunta, P. Ferrero, M. Pizzuto, M. Cavaletto, E. Pessione and **P. Bracchino** 435 Modulatory effect of some steroid hormones, their glucuronides and ouabain-like compounds on *Cavia cobaya* kidney Na^+,K^+-ATPase activity

D. Nigro, Z. B. Fortes, R. Scivotetto and **M. H. C. Carvalho** 443 Simultaneous release of endothelium-derived relaxing and contracting factors induced by noradrenaline in normotensive rats

H. Saavedra, H. F. Miranda, D. Bustamante, T. Pelissier and **C. Paeile** 447 Evidence that the action of clonixin is non-dependent of ACh release

J. N. Sharma 451 Does kinin mediate the hypotensive action of angiotensin converting enzyme (ACE) inhibitors?

F. S. Messiha, W. J. Martin and **K. D. Bucher** 459 Behavioral and genetic interrelationships between locomotor activity and brain biogenic amines

G. M. Salido, L. P. Francis, P. J. Camello, J. Singh, J. A. Madrid and **J. A. Pariente** 465 Effects of phorbol esters and secretin on pancreatic juice secretion in the anaesthetized rat

Jiann-Wu Wei and **Wen-Chun Hung** 471 Differential distribution of muscarinic receptor subtypes and their regulation by G-protein in rat brain

Dan C. Martin, Anne M. Carr and **Clyde A. Watkins** 477 Metabolic effects of isoflurane on rat lungs perfused *in situ*

Hong Xiang, Shawn Black, Sidney Katz and **John H. McNeill** 483 Omega-3 fatty acid treatment fails to alter α_1-adrenergic receptor mediated phosphoinositide turnover in streptozotocin-induced diabetic rats

Hiroshi Kotake, Noriyasu Noguchi, Tetsuya Doi, Satoshi Matsuoka, Ichiro Hisatome, Junichi Hasegawa and **Hiroto Mashiba** 489 An electrophysiological study of 9-amino-1,2,3,4-tetrahydroacridine (THA) on sino-atrial node preparations of rabbits

Tsuyoshi Ohmura, Matomo Nishio, Shigeru Kigoshi, Ikunobu Muramatsu and **Yasunori Momose**	493	Effects of TYB-3823, a new antiarrhythmic drug, on the electrophysiological properties of guinea-pig ventricular muscles
Z. Al-Zamil, J. Bagust and **G. A. Kerkut**	499	Tubocurine and strychnine block Renshaw cell inhibition in the isolated mammalian spinal cord
P. Dorigo, R. M. Gaion, P. A. Borea, P. Belluco, L. Mosti and **I. Maragno**	511	Different action of milrinone analogs in guinea-pig atria
G. B. Acosta, M. E. Otero Losada and **M. C. Rubio**	517	Chemical stress and GABAergic central system
J. E. Baños, F. Bosch and **A. Badia**	521	Influence of extracellular calcium in the effects of dibekacin and diltiazem on indirectly elicited tetanic responses in the rat phrenic-hemidiaphragm preparation
Eila Kaliste-Korhonen, Riitta Törrönen, Pauli Ylitalo and **Osmo Hänninen**	527	Inhibition of cholinesterases by DFP and induction of organophosphate-detoxicating enzymes in rats
Hidehito Sekino, Masaatsu K. Uchida and **Tamiko Suzuki-Nishimura**	535	The modulatory effects of phorbol esters on histamine release from mast cells induced by a polyethylenimine and a poly-allylamine
I. Takayanagi, N. Goromaru, K. Koike, F. Konno, T. Mori, M. Yoshida and **K. Kanematsu**	541	Interaction of newly synthesized *N*-cyclopropylmethyl derivatives of (−)-6β-acetylthionormorphine with opioid receptors
Akifumi Togari, Sumio Shintani, Michitsugu Arai, Shosei Matsumoto and **Toshiharu Nagatsu**	547	Acute effect of parathyroid hormone-(1–34) fragment on blood pressure in rats fed a low calcium diet
P. Brodin and **L. A. Skoglund**	551	Dose–response inhibition of rat compound nerve action potential by dextropropoxyphene and codeine compared to morphine and cocaine *in vitro*
K. Hiwada, Y. Inoue and **T. Kokubu**	555	Effect of SQ29,852, a new angiotensin converting enzyme (ACE) inhibitor with a phosphonic acid group, on the activity of angiotensin converting enzyme from human kidney
Tetsuro Sano, Masaatsu K. Uchida and **Tamiko Suzuki-Nishimura**	559	The effects of clozapine on rat mast cells are different from those of benzodiazepines
Péter P. Nánási, Miklós Dankó and **David A. Lathrop**	563	Effect of antiarrhythmic drugs, TTX, and 4-aminopyridine on repetitive electrical activity in frog skeletal muscle
M. Victoria Milanés, Jesús del Rio-García, Teodomiro Fuente, J. Antonio Martínez and **M. Luisa Vargas**	569	Stress and morphine mediated changes in pituitary–adrenal axis in guinea-pigs
Book Reviews	573	
New Patents	i	

Vol. 21, No. 5

Reviews

Jesús Marín and **Carlos F. Sánchez-Ferrer**	575	Role of endothelium-formed nitric oxide on vascular responses

Carlos F. Sánchez-Ferrer and **Jesús Marín** 589 Endothelium-derived contractile factors

Minireviews

Issei Takayanagi, Katsuo Koike and **Tsutomu Suzuki** 605 Pharmacological properties of newly synthesized derivatives of (−)-6β-acetylthionormorphine and their interactions with opioid receptors

A. V. Juorio and **I. A. Paterson** 613 Tryptamine may couple dopaminergic and serotonergic transmission in the brain

General Papers

S. Micelli, A. Bottalico and **E. Gallucci** 617 The effect of ADH and insulin on active sodium transport across frog skin in the presence of alternariol mycotoxin

Yoshiaki Akimoto, Akio Uda, Hiroaki Omata, Jun Shibutani, Hitoshi Nishimura, Masamichi Komiya, Kenji Kaneko and **Akira Fujii** 621 Cephalexin concentrations in human serum, gingiva, and mandibular bone following a single oral administration

I. T. Numan, M. Q. Hassan and **S. J. Stohs** 625 Endrin-induced depletion of glutathione and inhibition of glutathione peroxidase activity in rats

J. Marín, J. Reviriego, M. S. Fernandez-Alfonso and **P. Guerra** 629 Effect of nifedipine in arterial vasculature of human placenta

S. Sagratella, M. L. Proietti, C. Frank and **A. Scotti de Carolis** 635 High calcium solutions prevent the depressant effects of aminoglycoside antibiotics on central synaptic transmission in rat hippocampal slices

N. Satake, M. Morikawa, N. Sato, M. Matsuo and **S. Shibata** 639 The inhibitory effect of quinacrine on contractile responses to norepinephrine in isolated rabbit aorta

J. Y. Lee, R. B. Warner, M. E. Brune and **J. F. DeBernardis** 647 Calcium-induced vasocontractions after alpha-2 adrenergic receptor activation in the dog saphenous vein: comparison to calcium-induced contractions after potassium-depolarization

M. Yeadon and **I. Kitchen** 655 Multiple opioid receptors mediate the respiratory depressant effects of fentanyl-like drugs in the rat

Noriyuki Miyata, Katsuharu Tsuchida, Katsuyoshi Kaneko, Makoto Tanaka and **Susumu Otomo** 665 Mechanisms of inhibitory effects of CD-349 and K^+-channel activators on noradrenaline-induced contraction and changes in levels of cyclic GMP in rat aorta

John V. Zawadzki and **George B. Weiss** 671 The calcium-related basis of action of adenosine in rabbit aortic smooth muscle

Sheila A. Doggrell 677 The membrane stabilizing and β_1-adrenoceptor blocking activity of (+)- and (−)-propranolol on the rat left atria

E. Del Pozo, C. Ruiz-García and **J. M. Baeyens** 681 Analgesic effects of diltiazem and verapamil after central and peripheral administration in the hot-plate test

Penelope A. Longhurst, Jianshe Kang, Alan J. Wein and **Robert M. Levin** 687 The influence of intravesical volume upon contractile responses of the whole bladder preparation from streptozotocin-diabetic rats

Birger Kaada and **Leik Woie** 693 Effects of an angiotensin converting enzyme (ACE) inhibitor on plasma endorphin level

Antonio Zorzano and **Emilio Herrera** 697 Differences in kinetic characteristics and in sensitivity to inhibitors between human and rat liver alcohol dehydrogenase and aldehyde dehydrogenase

Peter C. Baker and **Kenneth M. Hoff** 703 Chronic citalopram action and the maturing mouse brain's indoleamine levels

GP 21/6—K

Masahiro Aomine	709	The inhibitory actions of amiodarone on rested-state contraction in isolated guinea-pig ventricular muscle
J. Marín, M. S. Fernandez-Alfonso, J. Reviriego and **P. Guerra**	715	Interference of diltiazem with serotonin- and potassium-induced contractions in human placental veins
J. Reviriego, M. S. Fernandez-Alfonso and **J. Marín**	719	Actions of vasoactive drugs on human placental vascular smooth muscle
Cheng S. Tsai, Carla Washington and **Richard F. Ochillo**	729	Cardiovascular effects of doxorubicin
Çimen Karasu, Yusuf Öztürk, Nilgün Altan, Nuray Yildizoğlu-Ari, Coskun Ikizler and **V. Melih Altan**	735	Thyroid hormones mediated effect of insulin on alloxan diabetic rat atria
G. M. Nicholson, I. Spence and **G. A. R. Johnston**	741	Calcium-dependent actions of the convulsant barbiturate, CHEB, on transmitter release at the rat neuromuscular junction
Péter P. Nánási, András Varró, David A. Lathrop and **Miklós Dankó**	747	Use-dependent action of antiarrhythmic drugs in frog skeletal muscle and canine cardiac Purkinje fiber
E. K. Marfo, P. Wallace, G. Timpo and **B. K. Simpson**	753	Cholesterol lowering effect of jackbean (*Canavalia ensiformis*) seed protein
A. V. Juorio, X. M. Li and **A. A. Boulton**	759	The effects of chronic trimipramine treatment on biogenic amine metabolism and on dopamine D_2, 5-HT_2 and tryptamine binding sites in rat brain
E. Contreras, A. Germany and **M. Villar**	763	Effects of some adenosine analogs on morphine-induced analgesia and tolerance
Giovambattista De Sarro, Angelina De Sarro, Francesco Federico and **Brian S. Meldrum**	769	Anticonvulsant properties of some calcium antagonists on sound-induced seizures in genetically epilepsy prone rats
M. R. Fernando, M. I. Thabrew and **E. H. Karunanayake**	779	Hypoglycaemic activity of some medicinal plants in Sri-Lanka
Hailu Ketema, W. Marvin Davis, Larry A. Walker and **Ronald F. Borne**	783	Pharmacologic and toxicologic effects of di(β-phenylisopropyl)amine (DPIA) in rats and mice
M. Boucher and **P. Duchene-Marullaz**	791	Evidence for postsynaptic α_1- and α_2-adrenoceptors mediating catecholamine-induced negative chronotropic ventricular responses in the conscious dog
M. V. Milanés J. del Rio-García, A. Cremades and **T. Fuente**	799	Effects of morphine on plasma B-endorphin and cortisol levels and on body temperature in guinea-pigs pretreated with 6-hydroxydopamine
Ji-Ming Ye, Eric Q. Colquhoun and **Michael G. Clark**	805	A comparison of vasopressin and noradrenaline on oxygen uptake by perfused rat hindlimb, kidney, intestine and mesenteric arcade suggests that it is in part due to contractile work by blood vessels
Pauli Ylitalo, Ulla Närhi and **Heikki A. Elo**	811	Increase in the acute toxicity and brain concentrations of chlorophenoxyacetic acids by probenecid in rats
Book Reviews	815	
New Patents	i	

Contents

Vol. 21, No. 6

Minireviews

M. O. Christen 821 Action of pinaverium bromide, a calcium-antagonist, on gastrointestinal motility disorders

Charles H. V. Hoyle 827 Pharmacological activity of adenine dinucleotides in the periphery: possible receptor classes and transmitter function

General Papers

Z. Szreder 833 Comparison of the effect of prazosin with that of dihydrobenzperidol and nifidepine on thermoregulatory responses produced by pyrogen in rabbits

Ana Maria Buzaleh, Elba Susana Vazquez and **Alcira Maria Del Carmen Batlle** 839 An experimental assessment of cyanide challenge dose-response, time-course and recovery of indicative toxicity parameters

Marc Haug, Laurence Wallian and **Paul F. Brain** 845 Effects of 8-OH-DPAT and fluoxetine on activity and attack by female mice towards lactating intruders

J. J. Braszko and **K. Wiśniewski** 851 Some behavioural effects of captopril in rats

J. A. Sanchez-Merino, S. Arribas, A. Arranz, J. Marín and **G. Balfagón** 859 Regulation of noradrenaline release in human cerebral arteries via presynaptic α_2-adrenoceptors

Péter P. Nánási, Tamás Kiss, Miklós Dankó and **David A. Lathrop** 863 Different actions of aconitine and veratrum alkaloids on frog skeletal muscle

Yasushi Yoshino, Hidehito Sekino, Masaatsu K. Uchida and **Tamiko Suzuki-Nishimura** 869 Characteristics of activation of rat mast cells by polyethylenimines and a polyallylamine: effects on the release of histamine and of arachidonate and its metabolites

Poduri Ramarao and **Hemendra N. Bhargava** 877 Antagonism of the acute pharmacological actions of morphine by *Panax ginseng* extract

Stefan Herzig, Andreas Koch and **Martin Pfaffendorf** 881 Differentiation between negative inotropic drugs by means of potentiated post-rest contractions in guinea-pig heart

A. J. Rankin, T. M. McWilliam, F. V. Swift and **C. R. Triggle** 887 Studies on the desensitization of atrial natriuretic factor and nitroglycerin in rat aortic rings

Xie-Nan Huang, Issei Takanayagi and **Tetsuhiro Hisayama** 893 Endothelin-1 induced contraction of rat aorta in Ca^{2+}-free medium independent of phosphatidylinositol 4,5-bisphosphate (PIP_2) breakdown

Fawzia A. Fahim, Mahmoud El-Sabbagh, Nabil A. Saleh and **Usama S. Sallam** 899 Biochemical changes associated with acute phosphorus poisoning (in humans)

Yuko Suzuki-Hatta, Haruo Takemura, Yoko Koike-Nakaya and **Hideyo Ohshika** 905 Residual secretion of amylase induced by isoproterenol from rat parotid gland slices

O. J. Mesna, I.-L. Steffensen, A. Melhuus, H. Hjertholm, H. E. Heier and **R. A. Andersen** 909 Induction of metallothionein production by zinc in human mononuclear cells

L. Chernaeva 919 Role of adenylate cyclase in modulatory effect of neuropeptide Y on [^{3}H]noradrenaline release in guinea-pig vas deferens

J. S. Popova and V. D. Petkov 927 Effect of the combination of the benzodiazepine tranquilizer medazepam and the nootropic agent meclofenoxate on the activity of rat brain muscarinic receptors

Juan C. Prieto, Consolacion Hueso and **Maria J. Carmena**	931	Modulation of the β-adrenergic stimulation of cyclic AMP accumulation in rat prostatic epithelial cells by membrane fluidity
B. M. Nabishah, Z. Merican, P. B. Morat, A. K. Alias and **B. A. K. Khalid**	935	Effects of steroid hormones pretreatment on isoprenaline-induced cyclic adenosine 3′,5′-monophosphate in rat lung
Alicia M. García, Adriana L. Goldemberg, H. Fernández, M. Fortunato, Lila Ricci and **R. E. Trucco**	939	Effect of chronic administration of verapamil in Duchenne muscular dystrophy
Nicholas S. Hill, Sheu-Ling Lee, Peter Jederlinic and **Barry L. Fanburg**	943	Effect of chronic *in vivo* exposure to hypoxia on serotonin uptake by isolated rat lungs
Giovanni Anfossi, Mariella Trovati, Elena Mularoni, Paola Massucco, Franco Cavalot, Luigi Mattiello and **Giorgio Emanuelli**	949	Studies on inhibition of human platelet response by diltiazem
F. S. Messiha	955	Effects of amitriptyline and nortriptyline on cerebral activity of the CDF-1 mouse strain
Raymond M. Dawson and **Michael Poretski**	961	Opposing effects of *N*-ethylmaleimide on the affinity of carbachol for muscarinic cholinoceptors of guinea-pig atrium
Book Reviews	969	
New Patents	i	